Volume 90 1978

Table of Contents

No. 1 1–212 issued on September 15, 1978
No. 2 213–426 issued on October 2, 1978
No. 3 427–634 issued on October 16, 1978

1 The Binding of Low-Affinity and High-Affinity Heparin to Antithrombin. Fluorescence Studies
B. Nordenman, A. Danielsson, and I. Björk

7 The Binding of Low-Affinity and High-Affinity Heparin to Antithrombin. Competition for the Same Binding Site on the Protein
A. Danielsson and I. Björk

13 Mechanism of Spermine Stimulation of Rat-Liver Isoleucyl-tRNA Formation
K. Igarashi, K. Eguchi, M. Tanaka, and S. Hirose

21 Comparison of the RNA-Dependent DNA Polymerase of an Endogenous Avian Leukosis Virus to the Polymerase of an Exogenous Avian Leukosis Virus
G. Bauer, R. Soo, and R. R. Friis

29 Polyamine Stimulation of Phosphorylation of Nonhistone Acidic Protein in Nuclei and Nucleoli from *Physarum polycephalum*
V. J. Atmar, G. R. Daniels, and G. D. Kuehn

39 Blood-Group-(A+H) Complex Fucolipids of Hog Gastric Mucosa
B. L. Slomiany and A. Slomiany

51 Regulation of Translation of Ovalbumin Messenger RNA by Estrogens and Progesterone in Oviduct of Withdrawn Chicks
P. Pennequin, D. M. Robins, and R. T. Schimke

59 The Composition, Structure and Origin of Proteose-peptone Component 5 of Bovine Milk
A. T. Andrews

67 The Composition, Structure and Origin of Proteose-peptone Component 8F of Bovine Milk
A. T. Andrews

73 The Phenoloxidases of the Ascomycete *Podospora anserina*. Structural Differences between Laccases of High and Low Molecular Weight
W. Minuth, M. Klischies, and K. Esser

83 Polynucleotide-Protein Interactions in the Translation System. Detection of Contacts between Some Ribosomal Split Proteins and 16-S RNA in 30-S Subunits of *Escherichia coli* Ribosomes
M. F. Turchinsky, N. E. Broude, K. S. Kussova, G. G. Abduraschidova, E. V. Muchamedganova, I. N. Schatsky, T. F. Bystrova, and E. I. Budowsky

89 Evidence against the Existence of Real Isozymes of Hypoxanthine Phosphoribosyltransferase
M. Strauss, J. Behlke, and M. Goerl

99 Isolation of Precursors of Cytochrome Oxidase from *Neurospora crassa*: Application of Subunit-Specific Antibodies and Protein A from *Staphylococcus aureus*
S. Werner and W. Machleidt

107 Dioxygen and Temperature Dependence of Ubiquinone Formation in *Escherichia coli*: Studies of Cells Charged with 2-Octaprenyl Phenol
H.-E. Knoell, R. Kraft, and J. Knappe

113 Birefringence of Oriented Thin Filaments in the I-Bands of Crab Striated Muscle and Comparison with the Flow Birefringence of Reconstituted Thin Filaments
Y. Maéda

123 Partial Purification and Characterization of Rat-Liver Messenger RNA Coding for Phospho*enol*pyruvate Carboxykinase (GTP)
P. B. Iynedjian and R. W. Hanson

131 Modulation of Adenylate Cyclase/Cyclic AMP Response by Thyrotropin and Prostaglandin E_2 in Cultured Thyroid Cells. 1. Negative Regulation
N. Takasu, B. Charrier, J. Mauchamp, and S. Lissitzky

139 Modulation of Adenylate Cyclase/Cyclic AMP Response by Thyrotropin and Prostaglandin E_2 in Cultured Thyroid Cells. 2. Positive Regulation
N. Takasu, B. Charrier, J. Mauchamp, and S. Lissitzky

147 Specific Binding of Vasoactive Intestinal Peptide to Brain Membranes from the Guinea Pig
P. Robberecht, P. De Neef, M. Lammens, M. Deschodt-Lanckman, and J.-P. Christophe

155 A Microsomal (Cytochrome *P*-450)-Linked Lauric-Acid-Monooxygenase from Aged Jerusalem-Artichoke-Tuber Tissues
J.-P. Salaün, I. Benveniste, D. Reichhart, and F. Durst

161 Isolation and Characterization of RNA Polymerase B from the Larval Fat Body of the Tobacco Hornworm, *Manduca sexta*
S. Sridhara and L. I. Gilbert

171 Cellobiose Oxidase, Purification and Partial Characterization of a Hemoprotein from *Sporotrichum pulverulentum*
A. R. Ayers, S. B. Ayers, and K.-E. Eriksson

183 Regulation of Endo-1,4-β-glucanase Production in *Sporotrichum pulverulentum*
K.-E. Eriksson and S. G. Hamp

191 Production, Purification and Partial Characterization of 1,4-β-Glucosidase Enzymes from *Sporotrichum pulverulentum*
V. Deshpande, K.-E. Eriksson, and B. Pettersson

199 The Reactivity of a Functional Tyrosyl Residue in Carboxypeptidase B. Nitration of the Cadmium Enzyme
N. Zisapel

205 Carbon-13 Nuclear-Magnetic-Resonance Spectra of Adenine Cyclonucleosides and Their Phosphates. Effects of Neighboring Groups for Elucidation of Fine Structure of Nucleosides and Nucleotides
S. Uesugi, S. Tanaka, and M. Ikehara

213 Human Serum Galactosyltransferase: Distinction, Separation and Product Identification of Two Galactosyltransferase Activities
E. G. Berger, I. Kozdrowski, M. M. Weiser, D. H. van den Eijnden, and W. E. C. M. Schiphorst

223 The Biosynthesis of Linoleate from Oleoyl-CoA via Oleoyl-Phosphatidylcholine in Microsomes of Developing Safflower Seeds
S. Stymne and L.-Å. Appelqvist

231 Primary Structure of Histone H2A from Gonad of the Sea Urchin *Psammechinus miliaris*
D. Wouters, P. Sautiere, and G. Biserte

241 Isolation and Characterization of the Lipopolysaccharide of *Thiocapsa roseopersicina*
R. E. Hurlbert, J. Weckesser, R. N. Tharanathan, and H. Mayer

247 Anthracycline Antitumor Antibiotic · Nucleic-Acid Interactions. Structural Aspects of the Daunomycin · poly(dA-dT) Complex in Solution
D. J. Patel and L. L. Canuel

255 Studies on the Occurrence of Disialosyl Groups in Glycoproteins of Salivary Glands
B. L. Slomiany, A. Slomiany, and A. Herp

261 The DNA · Tyrocidine Complex and Its Dissociation in the Presence of Gramicidin D
T. Chakraborty, J. Hansen, B. Schazschneider, and H. Ristow

271 On the Mechanism of Assembly of the Aspartate Transcarbamoylase from *Escherichia coli*
W. W.-C. Chan

283 Comment on the Use of Linear Free-Energy Slopes as Criteria for Distinguishing Hydride-Ion from Hydrogen-Atom Transfer in Reactions of Pyridine-Nucleotide Coenzymes
L. C. Kurz and J. L. Kurz

287 A Nuclear-Magnetic-Resonance Study of the Globular Structure of the H5 Histone
G. E. Chapman, F. J. Aviles, C. Crane-Robinson, and E. M. Bradbury

297 Encymic and Chemical Synthesis of ε-*N*-(L-Propionyl-2)-L-Lysine
M. Fujioka and M. Tanaka

301 The Reaction of Pyruvate with Saccharopine Dehydrogenase
K. Sugimoto and M. Fujioka

309 The N-Terminal Sequence Protein of L7/L12 Is Responsible for Its Dimerization
A. T. Gudkov and J. Behlke

313 Studies on the Structure of Protein L7/L12 from *Escherichia coli* Ribosomes
A. T. Gudkov, N. N. Khechinashvili, and V. N. Bushuev

319 Dimer State of Protein L7/L12 and EF-G-Dependent Reactions on Ribosomes
V. E. Koteliansky, S. P. Domogatsky, and A. T. Gudkov

325 A Specific Assay for Yeast RNA Polymerases in Crude Cell Extracts
A. Ruet, A. Sentenac, and P. Fromageot

331 Manipulation of Phospholipid Composition of Membranes with the Aid of Lipid Exchange Proteins. Incorporation of Phosphatidylcholine into Protoplasts of *Micrococcus lysodeikticus*
L. I. Barsukov, V. I. Kulikov, I. M. Simakova, G. V. Tikhonova, D. N. Ostrovskii, and L. D. Bergelson

337 Purification and Properties of Poly(ADP-ribose) Polymerase from Pig-Thymus Nuclei
C. Tsopanakis, E. Leeson, A. Tsopanakis, and S. Shall

347 Response of the Pyrimidine Pathway of *Escherichia coli* K12 to Exogenous Adenine and Uracil
R. I. Christopherson and L. R. Finch

359 *Naja haje haje* (Egyptian cobra) Venom. Some Properties and the Complete Primary Structure of Three Toxins (CM-2, CM-11 and CM-12)
F. J. Joubert and N. Taljaard

369 Phosphorylase Kinase Isoenzymes in Deficient ICR/IAn Mice
D. Daegelen-Proux, Y. Alexandre, and J.-C. Dreyfus

377 Rat-Liver Acyl-CoA: Cholesterol Acyltransferase
S. Balasubramaniam, K. A. Mitropoulos, and S. Venkatesan

385 Influence of Mitochondrial Radical Formation on Energy-Linked Respiration
H. Nohl, V. Breuninger, and D. Hegner

391 Degradation of the Ribosomal Genes by DNAse I in *Physarum polycephalum*
J. Stalder, T. Seebeck, and R. Braun

397 Message Sequences Are Not Adjacent to Poly(A) in Heterogeneous Nuclear RNA of Friend Leukemic Cells
V. V. Mackedonski and E. H. McConkey

405 Purification and Properties of a Ribonuclease Induced during the Early Larval Development of *Artemia salina*
J. Sebastián and C. F. Heredia

413 β-Adrenergic Receptors and Catecholamine-Sensitive Adenylate Cyclase in Rat Fat-Cell Membranes: Influence of Growth, Cell Size and Aging
Y. Giudicelli and R. Pecquery

421 Photo-Induced Protein-RNA Cross-Linking in Mammalian 40-S Ribosomal Subunits
A.-M. Reboud, M. Buisson, M.-J. Marion, and J.-P. Reboud

427 Mapping the ATP-Binding Site in the Catalytic Subunit of Adenosine-3′:5′-monophosphate-Dependent Protein Kinase. Spatial Relationship with the ATP Site of the Undissociated Enzyme
J. Hoppe, W. Freist, R. Marutzky, and S. Shaltiel

433 Second-Derivative Spectroscopy of Proteins. A Method for the Quantitative Determination of Aromatic Amino Acids in Proteins
C. Balestrieri, G. Colonna, A. Giovane, G. Irace, and L. Servillo

441 Prostaglandin-Synthesizing System in Rat Liver
I. Morita and S. Murota

451 Actin Amino-Acid Sequences. Comparison of Actins from Calf Thymus, Bovine Brain, and SV40-Transformed Mouse 3T3 Cells with Rabbit Skeletal Muscle Actin
J. Vandekerckhove and K. Weber

463 Identification and Characterization of Ribosomal Proteins Phosphorylated in Vaccinia-Virus-Infected HeLa Cells
M. Kaerlein and I. Horak

471 The Role of Guanine Nucleotides in the Interaction between Aminoacyl-tRNA and Elongation Factor 1 of *Artemia salina*
K. Roobol and W. Möller

479 Chemical Composition of Cholinergic Synaptic Vesicles from *Torpedo marmorata* Based on Improved Purification
T. Tashiro and H. Stadler

489 An Amphiphilic Form of Dipeptidyl Peptidase IV from Pig Small-Intestinal Brush-Border Membrane. Purification by Immunoadsorbent Chromatography and Some Properties
B. Svensson, M. Danielsen, M. Staun, L. Jeppesen, O. Norén, and H. Sjöström

499 Physico-chemical Evidence for the Interaction between Aldolase and Glyceraldehyde-3-phosphate Dehydrogenase
J. Ovádi, C. Salernó, T. Keleti, and P. Fasella

505 Formation of 2-Deoxyglucose-Containing Lipid-Linked Oligosaccharides. Interference with Glycosylation of Glycoproteins
R. Datema and R. T. Schwarz

517 RNA-Binding Proteins of Rabbit Reticulocytes. Isolation and Electrophoretic Characteristics
L. P. Ovchinnikov, T. A. Seriakova, A. T. Avanesov, A. T. Alzhanova, H. M. Radzhabov, and A. S. Spirin

527 A Comparison of the RNA-Binding Proteins with the Proteins of Polyribosomal Messenger Ribonucleoproteins in Rabbit Reticulocytes
L. P. Ovchinnikov, A. T. Avanesov, T. A. Seriakova, A. T. Alzhanova, and H. M. Radzhabov

537 Evidences for the Existence of Two Steps in DNA Replication Obtained in Toluene-Treated *Escherichia coli*
P. Forterre and M. Kohiyama

547 Studies on the Structure of Rat-Liver Polysomes by Small-Angle X-Ray Scattering
J. J. Müller, G. Damaschun, and H. Bielka

555 Biochemical Properties and the Physiological Role of the Fructose-1,6-Bisphosphate Activated L-Lactate Dehydrogenase from *Staphylococcus epidermidis*
F. Götz and K. H. Schleifer

563 Binding of Cibacron Blue F3GA to Flavocytochrome b_2 from Baker's Yeast
D. Pompon and F. Lederer

571 Involvement of Ribosomal Protein S1 in the Assembly of the Initiation Complex
G. van Dieijen, P. Zipori, W. van Prooijen, and J. van Duin

581 Restriction and Modification in *Bacillus subtilis*. Localization of the Methylated Nucleotide in the *Bsu*RI Recognition Sequence
U. Günthert, K. Storm, and R. Bald

585 Mechanism of Activation of Protein Kinase I from Rabbit Skeletal Muscle. The Equilibrium Parameters of Ligand Interaction and Protein Dissociation
J. Hoppe, R. Lawaczeck, E. Rieke, and K. G. Wagner

595 Three Conformationally Distinct Domains in the Amino-Terminal Segment of Type III Procollagen and Its Rapid Triple Helix ⇌ Coil Transition
P. Bruckner, H. P. Bächinger, R. Timpl, and J. Engel

605 The Role of *Cis-Trans* Isomerization of Peptide Bonds in the Coil ⇌ Triple Helix Conversion of Collagen
H. P. Bächinger, P. Bruckner, R. Timpl, and J. Engel

615 Transcription *in vitro* of Adenovirus-2 DNA by RNA Polymerases Class C Purified from Uninfected and Adenovirus-Infected HeLa Cells
P. Hossenlopp, J. Sümegi, and P. Chambon

633 Corrections

Indexed in Current Contents